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CONNECTION-80 BBS

A PUBLIC BULLETIN BOARD

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INTRODUCTION

Welcome to the powerful world of Telecomputing. This BBS sys-
tem is designed to allow you to transform you Model I or
Model III TRS-80 (tm) into a sort of time share computer for
the use and enjoyment of others.

This system was written by Tom Vande-Stouwe.
CONNECTION-80 is Copyrighted (C) 1980 and may not be
reproduced without permission. The user agrees to safe guard
this system from misuse as part of the software agreement
for this package. *CONNECTION-80* is a Registered
Trade Mark of B.T. Enterprises, and may not be used without
the written permission of B.T. Enterprises.

Bulletin Boards have been with us for a number of years now,
but have only reached the present level of use within the
last 12 to 18 months. This has been evidenced by the rapid
growth of privately owned hobby systems in the country. In
1980 there were about 150 public BBS systems in use through-
out the country, and today that number is well over 1000.
Predictions state that there will be over 5000 BBS systems
in use by the beginning of 1983.

This growth is the reason for systems like
CONNECTION-80 (tm). Your particular use for this
system is only restricted by your imagination.

This manual has been designed to assist you in setting up
your BBS system. It make certain assumptions regarding your
knowledge of Telecommunications and modems. If you need more
information than is contained in this system, please contact
the dealer where you purchase it for additional assistance.

SETTING UP

In order to set up your system, it is necessary for your system to have all of the necessary hardware to support a BBS. Please check the list below, and be sure that ALL of the required equipment is available on your system. If not, then the BBS will not run properly.

NECESSARY HARDWARE

1.) 48K MODEL I OR MODEL III TRS-80
2.) MINIMUM 2 DISK DRIVES
3.) RS232-C INTERFACE *
4.) MODEM WITH AUTO ANSWER CAPABILITY
5.) PRINTER
6.) DISK OPERATING SYSTEM
7.) MINIMUM 2 BLANK DISKETTES
8.) A TELEPHONE LINE TO MODEM
*.) *IF CHATTERBOX, LYNX MODEM, OR PORT- ADDRESSED AUTO CONNECTION IS USED, THEN RS232-C INTERFACE WILL NOT BE NEEDED. THE PORT ADDRESSED AUTO CONNECTION REQUIRES THE USE OF A SPECIAL DRIVER, AND IS NOT AVAILABLE FOR THE MODEL III AT THIS TIME.*

Place your computer in a location of your choice, and hook up the equipment. Using Drive 0 to hold your operating system (DOS), put the diskette with the program on it in drive #1. It is a good idea to backup the diskette first, as this may be helpful in the event of a 'crash'.

CONNECTION-80 for the Model I is supplied on a self booting transfer disk and may be transferred to an operating system disk on a one drive system. However, the system will require a minimum of 2 drives to function properly.

If you are using a Model III, transfer the files from the distribution disk to your operating system disk. The distribution disk is a single density 35 track disk, and the files can be transferred to TRS-DOS with the *CONVERT* command. NewDos/80 uses the *PDRIVE* and *MDIRP* commands. DosPlus, use the *CONVERT :1* command.

After backing up the diskette, place the backup in drive #1 and copy all of the files from the diskette to the operating system diskette. Then place a blank diskette in drive #1 and format it.

From the Dos Ready prompt, enter 'AUTO MS806Ty x' and press enter. *The 'x' represents the Operating system that you are using. To display the options, type 'MS806Ty' (The y being a 1 for Model I and a 3 for Model III) and a parameter error will occur and the allowable parameters will be displayed.* This will set up the system to run the driver after each reboot. This will be useful in the event of a power failure.

If the system has been properly hooked up, then pressing the reset button should bring the system to life. Do that now, and if everything is OK, then the system should au-tomatically chain itself to life. After about 70 seconds, the screen should read

```
Connection-80 by B.T. Enterprises (c) 1981          00:01:00
By Thomas E.Vande-Stouwe
Next Caller will be #1
Last message in system is # 0
Last on System was
Name          TOM VANDE-STOUWE
From          CONNECTION-80 HQ
TIME          06/22/81 10:00:00

Currently 0 Messages in the System



[Graphic Blocks]

Last reset at 00:01:00
```

The system has booted, and is capable of receiving a call but do not put the system on line at this time. There are a number of changes to be made to set the system up as YOUR system.

SIGNON MESSAGES

The system has the capacity to store many messages that you create for use by the callers. They can be accessed from dif-ferent parts of the system, and should reflect the type of information that would be expected by the user. The first of these files is the Signon Message. After the user estab-lishes contact with the system, and answers a number of ques-tion regarding the type of system he is using, he is asked if he wishes to read the Signon Messages. This is a file

that you create which contains any news about the system, or
possibly the community or a club. The content is entirely up
to you. For information on creating this file, see the File
Creation section later in the manual.

BULLETIN FILES

In addition to the signon messages, the menu allows the user
the option of reading files from a few different locations.
One of these locations, is the Bulletin section (Labeled
Feature section on some systems). This section is set up to
allow the user to view a number of ASCII files provided by
you, and to be able to select them from a menu. The files
are present on the disk you received, but contains dummy in-
formation. To change this to live files, follow the format
in the File Creation section of this manual.

INFORMATION

Like the other file sections, this section allow you to put
in a file for users to read. The suggested use of this file
is to inform the users of the system, what the type and con-
figuration of the system is. It also is a location to put
any special interests you may have. For information on form-
ing this file, see the File Creation section.

DOWNLOAD

This section is also a menu driven section of the BBS. It al-
lows you to place files, programs and printouts into the sys-
tem for the use by the users of your system. Information on
these files will be found in the File Creation section of
this documentation.

MERCHANDISE

If you are running your system as part of a commercial ven-
ture, then this section may be useful to you. This section
will allow you to list products and services for purchase by
the user of the system. Each item for sale is entered as a
separate file, so updating the file is easy. The exact for-
mat will again be found in the File Creation section of this
manual.

SYSOP SIGNON

When you sign onto your system, you are given a great deal
of power over the system. It is for this reason that your
signon is different than the general public. If you are at
the keyboard of the system, the protocol is simple. Just hit
the right arrow key, and the system will automatically log
you in as 'SYSOP' and drop all protection levels on private
message. It will also offer you the option of deleting any
message in the system. If you are signing on from a remote
location, you will need to signon as 'SYSOP'. This is not
possible from the name entry section, as it will ask for
your first name also, and add it to the front of the name
SYSOP and put a space between. This would not properly sign
you on as 'SYSOP'. The code used to sign you on remotely can
be found in line 220. On that line you will find that SI$
has been set equal to "+++,,". This is the SYSOP signon as
it comes to you. To change it to a code of your choice, just
edit the lane and place in any UPPER CASE letters and/or num-
bers and symbols up to 11 characters long. You will use this
at the enter last name question when signing in remotely.

REMOTE BREAK

A very powerful feature of the BBS is the ability of the
SYSOP to terminate the activity of the BBS from a remote lo-
cation, and while still in control, run another program, or
list another file. This powerful feature is also very dan-
gerous if an unauthorized user is able to perform this func-
tion. The BBS protection is totally disabled after the BBS
has been broken, and function such as 'KILL' 'COPY' 'FORMAT'
'BACKUP' etc will all work. To prevent this, a 4 step pro-
cess is required to terminate the BBS from a remote loca-
tion. Two characters must be entered in the proper order.
These two characters can be found in lines 109 and 220. In
line 109 M$ is set to a long string of letters, and one
symbol near the end. This is the first of the Break charac-
ters. If entered from the main menu,it will print and not re-
turn an error message. The second character can be found in
line 220. It is the character assigned to HK$. The proper se-
quence is to enter the first character from the main menu,
and within 2 seconds enter the second character. If these
two steps are not done properly, the system will ignore the
input and continue with the main menu as if nothing has hap-
pened.

If the sequence is carried out correctly, then the system
will respond with the prompt 'Password ?'. The password can
be found in line 220 as the string assigned to MP$. It is
set to PASSWORD and should be changed as soon as you receive
the system. If the proper password is entered at this point,
the system will respond with the prompt.

BREAK IN 219

Ready
>
The system appears to have broken, but it has not. This step
is to stop an accidental entry. Unless the password is again
entered at this point, the system will IMMEDIATELY terminate
the user without further warning. A message will be printed
to the printer advising you of the near break. Incorrect
password attempts at the password level will also be logged
to the printer, and the system will only tolerate 3 attempts
at the password before terminating the user.

CHAT

On of the most friendly features of the system is the chat
function. This section will allow you to 'Keyboard' with an-
other user. When the user requests a chat, the system will
send 5 bell codes to the printer. If your system's printer
has a bell, it will ring. If not, then the message on the
screen will be your indication that a user is requesting a
chat. To accept the chat, press the '+' key to enter the
chat mode. To end the chat, enter the word End as a sep-
arate line after a > prompt.

FILE CREATION

CONNECTION-80 has the ability to send text files out
over the modem to users. This is the most powerful feature
of the entire system. To utilize this power, you will need a
word processor program, or some form of text generator. If
you do not have a program as Electric Pencil or Scripsit,
then you may find the program at the end of this manual
useful. If you are using a word processor (as EP or
Scripsit), then write the text file you wish to display, and
place a CR at the end of each line. When you are happy with
the format of the text, then save it to disk with the name
corresponding to the section you wish it listed under. (If
using Scripsit, save the file as an ASCII file with the A
attribute)

To decide on a file name, please follow the following guide-
lines. Each of the four file section of the BBS (ie
Bulletins, Downloading, Info, and Merchandise) each have sep-
arate files with a four letter prefix referencing it to the
type of file. For example the Downloading section files all
begin with the prefix 'DOWN'. All of the files have the ex-
tension '/PCL'. In the Download section, all of the files
are name 'DOWNxxxx/PCL'. xxxx can be any set of numbers
and/or characters from 0 to 4 in length. The files with only
the name of the section (as DOWN/PCL) are the files that con-
tain the menus for the section. This is the 'page' that is
displayed when the user asks for that section from the main
menu. This file should contain information on using the sec-
tion, as well as a list of selections for the section. A sec-
ond file that is nearly identical is the 'H' file. (as
DOWNH/PCL). This file is the file that will be called when
the user asks for help from the bottom of a page, or when en-
tering the section in the 'Xpert' user mode. This file
should contain the same menu as the file without the H, but
should not include the explanation of the use of the
section.

The DOWNLOAD section has an additional feature. When se-
lected, the system automatically opens and closes the buffer
on an intelligent terminal program like UNITERM if the user
is using one. The protocol is very simple. If you wish to
have the buffer opened and closed for the user, then name
the file 'DOWNxxxx/PCL' where xxxx is a number from 10 to
9999. When selected from the menu (Menu selections should
match the number after the DOWN...) The system will call the
file from disk and send it out over the modem, sending a
code to open the buffer first. When the transmission is
complete, then the system will send another code to close
the buffer enabling the user to save it to disk or tape for
future use.
Basic program can be put on the system for downloading by
first loading the program into memory, and then saving it
out to the disk as an ASCII file. ex 'SAVE"DOWN37/PCL:2",A'
will save download file number 37 to disk #2 as an ASCII
file ready for downloading. NOTE: Do not put copyrighted
software on your system for download, as it is an infringe-
ment of the Copyright laws, and the legal ramifications are
very serious!

The same protocol is used for the other sections, and a file
by the name of 'DOWN/PCL', 'DOWNH/PCL', 'INFO/PCL',
'INFOH/PCL', 'BULL/PCL', 'BULLH/PCL', 'PROD/PCL', PRODH/PCL'
AND 'SIGNON/PCL' should be on the disk at all times.

In order to more efficiently utilize string space, the sys-
tem will read the files from the disk as a random access
file. This will speed up the process, but the EOF (End of
File) marker may not be in the proper location if the file
was saved in a sequential manner. To correct this, a 00Hex
is added to the end of the file to tell the system where to
stop printing. If you are using EP or the file utility in
the back of the manual, then you need not concern yourself
with this, as it will be done automatically. If not, please
use the utility at the end called 'PUTZRO/BAS' or use
'SUPERZAP' to 'ZAP' in a 00 at the end of the file.

CUSTOMIZING YOUR SYSTEM

To set the system up as YOUR system, it will be necessary
for you to edit the BASIC program. Please be familiar with
the TRS-80 BASIC Edit functions, if not, please refer to the
Level II Reference manual for more information.

The first modification to the system should be made in line
#35. The line at present reads:

35 PRINT:PRINT"Welcome to CONNECTION-80 of
":PRINTB1$:PRINTB2$:PRINT"Please Hit <ENTER> if you are a
TRS-80"

This line should be edited to add the name of the Town and
State that your system will be functioning from in the blank
spaces provided. (You may use more or less space, as de-
sired). The next change should be made in line #1. You will
find two string variables called B1$, and B2$ both set to
"". You should put any messages that you want everyone to
see in these two variables. They will be displayed after the
welcome message when a person make connection with the
system.

DOS CHANGES

The *CONNECTION-80* system was designed to run on one
of the higher level Disk Operating Systems. It is
recommended that you use on of the following DOS's with
CONNECTION-80.

DOSPLUS (3.3 or Higher)   [3]
NEWDOS80 (1.0 or 2.0)   [3]
VTOS (4.0 or higher)   [1]
LDOS (5.01 or higher)   [1]

After you have decided which system to use, edit line #0 of
the program to pass the proper user call to the Driver. The
user call will be found near the end of the line as follows.
0 ...X=USR0(?):...

Replace the ? with the proper parameter as shown in the ta-
ble above (the number in the []'s).

If you are using an operating system other than listed
above, then some of the functions of the BBS will not work
properly. The functions that read the files from the disk
(INFO, PROD, BULL, DOWN, SIGNON) will not work due to the in-
ability of the other systems (TRSDOS, NEWDOS 2.1) to field a
256 Byte field. A patch is available for this situation;
please contact B.T. Enterprises for info.

TIME AND CLOCK

The system will display the time on the screen for the oper-
ator, and will keep track of the users of the system, by
reading the TIME$ from BASIC. If you are using a hardware
clock (TIC-TOC-80(tm)) on your Model I, then you need only
remove the Rem (') statement from line 249. If not, then you
will need to set the time on the system after a power up
sequence. If the system was set, and only rebooted, then
this will not be necessary, as the driver stores the time
and date and reloads it after a reboot.

If the System finds that the year register of the clock has
reset to 00, then when the system recycles it will prompt
for time and date input for 5 seconds. If no response is
received in 5 seconds, then the system will continue. This
will prevent the system from locking up after a power out.

TIC-TOC-80(tm) is available from the vendor you purchased
this system from if you desire accurate time and date.

UTILITY PROGRAMS

MAKEFILE/BAS

```
10 CLEAR 1000
20 INPUT"Enter name of file to be saved to disk";A$
30 INPUT"Enter drive to be saved on (0-3)";B$
40 C$=A$+":"+B$
50 OPEN"O",1,C$
60 CLS
70 PRINT"Type 'EOF' on a separate line to end input"
80 PRINT"Hit the ENTER key at the end of each line"
90 PRINT
100 LINEINPUT">";D$
110 IF D$="EOF"THENPRINT#1,CHR$(0):CLOSE:END
120 PRINT#1,D$
130 GOTO100
```

The file above can be used locally to create a file for the
BBS, or if desired, can be used to transmit a file from a re-
mote location to the BBS.

The next program is called 'PUTZRO/BAS'. It is is designed
to be used to put a 00Hex at the end of a file if your word
processor (as Scripsit) does not do so. It is not necessary
if you use the MAKEFILE/BAS program above.

PUTZRO/BAS

```
10 CLEAR100
20 CLS
30 INPUT"Enter name of file to be done";A$
40 OPEN"E",1,A$
50 PRINT#1,CHR$(0)
60 CLOSE
70 PRINT"Enter A for another, E to end"
80 I$=INKEY$:IFI$=""THEN80
90 IFI$="A"THENRUN
100 IF I$="E"THENEND
110 GOTO 80
```

BT
ENTERPRISES

171 Hawkins Road
Centereach, New York 11720

CHANGE OF STATUS

If you change your address or System Phone number,
please let us know by completing this card. This
way we can keep you advised of new enhancements.

NAME_____

ADDRESS_____

CITY, ST, ZIP_____

BBS PHONE #_____

CONNECTION-80(tm)
Serial # **#83152**   ver.**8.06**